

Appropriations Committee Testimony
University of Connecticut, School of Engineering
Dr. Michael Accorsi, Senior Associate Dean for Research & Graduate Education
February 10, 2016

Good afternoon Co-Chairs, Ranking Members, and members of the Appropriations Committee. My name is Dr. Michael Accorsi, and I am the Senior Associate Dean for Research & Graduate Education at the UConn School of Engineering. Thank you for the opportunity to speak with you today. **I am here to request that you reconsider the Governor's proposed budget cuts to your state flagship university, the University of Connecticut.**

The School of Engineering is a strategic partner in state-wide efforts to strengthen our economy. We do this in three main ways: we educate next generation highly-skilled workforce professionals, we conduct research that generates innovative ideas and technologies, and we partner with companies and government agencies to transfer the intellectual capital generated at UConn to promote economic development and to meet society needs in a range of sectors, including manufacturing, energy, transportation, the environment, and information security.

Public Act No. 13-233, An Act Concerning Next Generation Connecticut, recognized the importance of our work in these areas to the vitality of our communities and economy and set ambitious targets for growth in STEM fields at UConn. The School of Engineering responded to NextGen's challenges and opportunities by promoting historical growth in our education, research, and outreach initiatives.

In the past three years, our School of Engineering increased undergraduate enrollment by 50%. We now serve an undergraduate population of 3046, up from 1566 in 2005. Our graduate enrollment is up 33% from 2012 and 100% from 2006. The School of Engineering now attracts some of the most talented students at the university.

Our graduates support the state in many ways. They begin by accepting internships and public service projects as students and then move on to take engineering jobs with Connecticut companies and government agencies. Some of our graduates launched companies during their education at UConn and are now technology entrepreneurs; others will eventually become executives at major corporate employers in the State.

We work very closely with companies throughout Connecticut to address workforce needs. For example, on January 25, 2016, General Dynamics Electric Boat announced a plan to hire more than 1800 new staff to meet their production goals. The same day Pratt & Whitney, at a supply chain event, publicly announced a backlog of engine orders and emphasized the need for talented workforce. UConn is the main feeder of engineers to these companies.

Our ongoing partnerships with state government agencies helps ensure that their workforce needs are addressed. For example, the Connecticut Department of Transportation has a shortage of transportation engineers and has requested that UConn Engineering consider creating a workforce training program at the downtown Hartford campus to meet workforce requirements through continuing education and engineering degree programs.

To support continued growth in enrollments and to ensure educational programs meet Connecticut's public and private sector workforce requirements, additional engineering faculty are urgently needed; the cuts proposed by the Governor's budget would make it difficult to maintain programs even at their current levels and would compromise our ability to deliver outstanding educational quality for increasing numbers of students.

The STEM-focused Next Generation CT 2013 legislation not only raised expectations for student enrollments, but significantly enhanced UConn's capability to conduct research involving students, faculty and industry partners. UConn Engineering again responded to NextGen CT by making significant gains in our research enterprise. External research awards, 80% of which are from federal sources, increased from \$26M in 2014 to \$46M in 2015-- a 70% increase. ***Our faculty, on average, generate approximately \$300,000 per year in external research funding.***

Federal research funding drives excellence in academics and innovation. Federal research dollars promote research opportunities for graduate and undergraduate students alike. Sponsored research also enables our faculty to make discoveries that bring international visibility to UConn and Connecticut as a home for innovation. Federal research dollars also fund the development of intellectual capital that leads to: better manufacturing processes, new biotechnology discoveries for better health, entrepreneurial start-up companies, clean energy innovations for green communities and energy independence, and many other benefits.

UConn Engineering faculty are outstanding and currently partner with Connecticut companies to bring federal research dollars to Connecticut to develop technologies that can benefit our manufacturing base. The U.S. Economic Development Administration just awarded \$500K in match funding towards a \$1.5M joint effort with UConn and Connecticut Innovations to create the Quiet Corner Innovation Cluster to promote adoption of advanced manufacturing technologies by small manufacturers. EDA also designated Connecticut an IMCP state for aerospace and shipbuilding under the "Investing in Manufacturing Community Partnerships Program." The IMCP is designed to accelerate the resurgence of manufacturing communities nationwide by supporting the development of long term economic development strategies. UConn Engineering has been working closely with state agencies and industry stakeholders to advance opportunities, like the Quiet Corner Innovation Cluster, to strengthen the aerospace and shipbuilding supply chain.

Clean Energy Smart Manufacturing Innovation Institute (CESMII) which is comprised of industry, university and government members organized as a national network of regional nodes. Connecticut is part of the Northeast regional node. CESMII will enable transformational improvements in energy efficiency and U.S. manufacturing productivity while supporting the current and future workforce. Through the Flexible Electronics initiative, Connecticut recently became a founding member of NextFlex, a flexible electronics manufacturing research institute that will spur national development in this emerging field.

The proposed budget cuts to the University would jeopardize the upward trajectory in the School of Engineering's research enterprise and would seriously impact our ability to recruit and retain top research faculty, to provide research experiences to students, to develop collaborative partnerships with Connecticut's industry base, and to create innovations that stimulate economic development.

The recommended cuts to the University will have a devastating impact on our students, resulting in overcrowded classrooms, substantially reduced instructional support, and lower quality educational experience. A budget shortfall could also force an increase in acceptance of out-of-state students to increase revenues, which would be a detriment to Connecticut residents. Budget cuts send a message of uncertainty and austerity that can discourage the best students, faculty, and staff from choosing UConn—to the detriment of the State and all of its citizens.

The proposed budget cuts will have a substantial negative impact on the School of Engineering. The School of Engineering's educational programs and research initiatives as well as our ability to meet public and private sector workforce and technology needs critically depend on state funding. **I am urging you to reconsider the Governor's proposed budget cuts and to preserve full funding for STEM and Next Generation CT initiatives at the University of Connecticut.**

Thank you for your longstanding support of the University of Connecticut.